

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (currently amended) A method of separating adhered metal particle matter from a surface of a conductive substrate comprising:

producing gaseous hydrogen by electrolyzing water of an electrolyte medium in contact with said surface of said substrate, dislodging said adhered metal particle matter by force of said evolved hydrogen; and

transporting said dislodged metal particle matter from a vicinity of said surface.

2. (original) The method of Claim 1, wherein said electrolyzing is conducted at a voltage greater than the electrolysis voltage of water.

3. (original) The method of Claim 1, wherein said dislodged matter is transported from a vicinity of said surface by flow of electrolyte via an eductor.

4. (currently amended) The method of Claim 1, wherein said transporting of dislodged metal particle matter is conducted in the presence of a fluid that entrains said dislodged metal particle matter.

5. (original) The method of Claim 4, wherein said fluid comprises said water in contact with said surface of said substrate.

6. (original) The method of Claim 4, wherein said transporting comprises movement of at least one of said surface and said fluid relative to one another.

7. (original) The method of Claim 6, wherein said fluid moves.

8. (original) The method of Claim 6, wherein said substrate moves.

9. (currently amended) The method of Claim 4, wherein said fluid has a density sufficient to entrain said dislodged metal particle matter.

10. (original) The method of Claim 1, wherein said conductive substrate constitutes a cathode.

11. (original) The method of Claim 2, wherein the voltage is at least 2 volts.

12. (original) The method of Claim 2, wherein voltage is at least 5 volts.

13. (original) The method of Claim 2, wherein the voltage is up to about 20 volts.

14. (original) The method of Claim 1, wherein the electrolyte medium comprises a basic electrolyte.

15. (original) The method of Claim 1, wherein the electrolyte medium comprises an acidic electrolyte.

16. (currently amended) The method of Claim 1, wherein the electrolyte medium comprises sodium carbonate in an amount of about 20 to about 30 grams per litre liter of electrolyte medium.

17. (original) The method of Claim 1, wherein the pH of the electrolyte medium is in a range of about 3 to 13.

18. (original) The method of Claim 1, wherein the electrolyte medium comprises trisodium phosphate.

19. (original) The method of Claim 1, wherein said electrolyzing is at a current density of less than one amp per square decimeter (A/dm^2).

20. (original) The method of Claim 19, wherein said current density is in a range of about 0.1 to about 0.3 A/dm^2 .

Claims 21-29. (cancelled)